

Public Health Conference on Records and Statistics

The Public Health Conference on Records and Statistics is a program of the National Center for Health Statistics, Public Health Service, for developing Federal-State-local cooperation in vital and health statistics. This program assembles vital records officials and public health statisticians for a meeting every 2 years. Between these biennial meetings small study groups investigate and report on problems of primary concern in vital records and public health statistics. During the past 2 years study group activity has centered on content, format, and medicolegal aspects of Standard Certificates of Live Birth, Fetal Death, and Death, and Standard Records of Marriage and of Divorce or Annulment; marriage statistics and divorce registration; registration methods in institutions; student training and staff exchange.

The 10th biennial meeting was held June 15-19, 1964 in Washington, D.C. In attendance, exclusive of personnel of the National Center for Health Statistics, were 312 invited representatives, who came from vital statistics registration offices and other branches of State and local health departments, Federal Government agencies, universities, private associations and organizations, and a few foreign governments.

Following are the highlights of the conference's three general sessions and eight workshop meetings organized around excerpts (in italics) from the Surgeon General's address, which was delivered by Deputy Surgeon General David E. Price.

The principal concern of this conference remains the continued advancement of vital and health statistics in the United States to make them continuously more responsive and useful to our national needs.

The Surgeon General identified five ways in which the conference could advance the country's vital and health statistics:

- Develop principles and solve detailed problems involved in revision of the standard certificates.
- Encourage nationwide extension of the marriage and divorce registration areas.
- Improve the quality of vital and health statistics.
- Extend the range of usefulness of vital and health statistics.
- Increase the number of trained workers in these areas.

The conference meetings were devoted to the development of these themes.

Standard Certificate Revision

The Public Health Service (acting through NCHS) has the responsibility of determining the format and content of the standard certificates. In the interest of having uniform vital statistics over a period of years, it recommends standard forms for use by the vital statistics registration areas. Decisions on the certificates naturally take into account the suggestions and views of both data collectors and data users as expressed through the conference mechanism.

The proposed new documents would be uni-

formly titled "U.S. Standard Certificate of" All the new certificates except the death certificate would contain both an upper or main portion certified by signature and a lower or subsidiary portion containing additional information related to the event.

LIVE BIRTH AND FETAL DEATH. Items on the certificates of live birth and fetal death calling for the same information are worded identically on the revised forms. The revised certificates begin with particulars concerning the child or fetus rather than, as now, with the place of birth and usual residence of the mother. All checkboxes have been removed from the main portion because the checks might be misplaced in typing and in making carbons. The following other proposed changes on the live birth and fetal death certificates were considered:

- Rewording: "Date last normal menses began" instead of "Length of pregnancy."
- Removal: "Residence on a farm?" and "Date on which given name added."
- Transfer: the items on previous deliveries and on color or race from the top portion of the certificate to the lower portion.
- Addition: "Mother's date of birth" (in addition to age in lower portion).

A proposal to obtain more useful socioeconomic information by substituting questions about the mother's and the father's education for the present item on occupation was discussed at length. The present certificates ask for "Usual occupation" of the father, whereas the U.S. Census asks for "Last job or business." The two questions are not strictly comparable, and either item is hard to code. While education is a useful health and demographic variable, some conferees believed that information on it would not be reported accurately. The new item on education would be placed in the lower portion of the certificates, whereas the present item on occupation is in the top portion.

At one workshop it was suggested that a social security number be assigned at birth, corresponding somewhat to the "birth-number" item on the present standard birth certificate. As was pointed out, the birth-number system could provide a common identification of all vital records pertaining to a specific individual. If these numbers were cited on marriage licenses, for

example, the information on birth and marriage records could be combined for study purposes. At present, the workshop was reminded, there is no easy way of preventing the issuance of more than one social security number to an individual; also many persons have none. About three-fourths of the U.S. registration areas currently number birth certificates according to the birth-number system. The record-linkage possibilities of the system have not, however, been realized.

Some delegates strongly opposed the proposal that "color or race," in slightly reworded form, be moved to the lower portion of the certificates, which would result in its omission from certified copies. The delegates opposing this proposal held that the item has legal significance. One suggestion was to place the color or race item on the last line of the legal portion of the certificates, where it could either be included on or omitted from certified copies.

Among new items proposed for addition to the live birth and fetal death certificates were:

- Hour of birth.
- Name of person certifying to the personal particulars and attendant's name and address, in addition to the signature of the person attesting the live birth or fetal death.
- For multiple births, the State file numbers of the birthmates (in margin of certificate).
- For deaths under 1 year of age, the State file number of the death certificate (also in margin).
- Questions on date of mother's first marriage; initiation and amount of pregnancy care; date of termination of previous pregnancy and its result.
- In the lower portion of the certificates, about 40 checkbox items on complications of pregnancy, questions on induction of labor and birth injury, and 18 checkbox items on congenital malformations.
- On fetal death certificates, "Were autopsy findings considered in determining causes of death?" and name and address of funeral home.

Since even slightly lengthened certificates could create serious storage problems, it was suggested that the checkbox items might be placed on a detachable section which could be removed after microfilming. Questions also

were raised about ways of linking information on the birth and fetal death certificates.

DEATH. On death certificates, too, the personal items were put ahead of the items on place in the proposed revision. Three certificate forms are being considered, instead of the one formerly recommended. The three would have almost identical content except for the certification and signature spaces. In registration areas having medical examiners in all sub-areas, two forms would be used, one for medical examiners and the other for physicians. In other areas, one form would be used, providing different certifications for the coroner and the physician. As previously, the death certificate would contain no lower section.

Removal from the death certificates of the following questions was discussed:

- Length of stay in city, town, or location.
- Is residence on a farm?
- Veteran status.
- Citizenship.

Some of the items on the death certificates would be changed in wording:

- "Date of birth" would ask specifically for the month, day, and year.

- One item would read "Specify if accident, suicide, homicide, or manner undetermined." This item would replace checkboxes inquiring about only the first three of these points.

- Seventeen checkboxes would be removed from the forms in favor of verbal fill-ins.

Among new items proposed for addition to the forms are:

- "Name of surviving spouse (if wife, give MAIDEN NAME)," also spouse's "Age last birthday."

- "Death under 1 year of age: enter State file number of birth certificate for this child" (in margin of certificate).

- If autopsy was performed, "Were findings considered in determining causes of death?"

- "Name of funeral home."

Participants in the conference workshop on death certificates believed that it was not necessary to obtain both the name of the funeral home and the funeral director's signature. They agreed that the item on length of stay in the item on place of death might be omitted, as well as the farm residence item.

MARRIAGE AND DIVORCE. Some of the changes proposed for the marriage and divorce certificates were to apply to both of them:

- "Residence" of the parties is asked for, instead of "Usual residence."

- With respect to residence, there is now a separate item, "Inside city limits (specify yes or no)." Only the marriage record formerly included: "If outside corporate limits write RURAL and give township."

- Separate spaces are provided for street addresses, as distinct from names of city, county, and State.

The following new features proposed for marriage and divorce certificates were discussed:

- Inclusion of the social security number.

- Addition of a separate section at the bottom of the certificates, titled "Other personal information," which would have for each party items on race, "Number of this marriage" (in place of "Number of previous marriages"), and the new item on education (in place of "Usual occupation").

- Inclusion of both the education and occupation items.

Some conferees did not favor two-section marriage and divorce certificates.

The personal information portion of the marriage certificate also would include questions on how the last previous marriage (if any) was ended for each party, substantially as on the old certificate. The divorce certificate would add an item here: "If married more than once, number of previous marriages ended by: death . . . ; divorce or annulment . . ."

The divorce certificate would cover "absolute divorce or annulment" instead of "divorce or annulment" and would contain a number of new items pertaining to the divorce situation in the upper portion.

- Place and date of final separation.

- Total number of children affected, in addition to the number under 18 years of age (which is now being entered).

- Name and address of the attorney for the plaintiff and also the name of the court.

- A place to indicate "Type of decree (absolute divorce or annulment)."

- In addition to husband or wife, "Other" is

indicated as a possible answer to the questions as to who was the plaintiff and to whom the decree was granted.

- All checkboxes would be removed from marriage and divorce certificates.

Marriage and Divorce Registration Areas

The glaring defect we face is that the marriage registration area covers only 36 States and the divorce registration area only 22 States. For coverage of all States, there are some which need legislation and others wherein the administration of present law is all that stands in the way. In every State, strong public support is needed before we can expect satisfactory statistics and records on the important vital events of family formation and dissolution.

In the marriage and divorce workshop, which discussed ways of extending the U.S. marriage and divorce registration areas, Dr. Irene Taeuber placed knowledge of family formation at the center of current demographic understanding. She noted that marriage patterns are the crucial variable in the changing population picture. A lower age of marriage means a different education, as to length and character, especially for women. It means, too, that family-formation decisions are being made by relatively young people. We need to remember, she also observed, that premarital conceptions and illegitimacy are defined in terms of marriage. Marriage often is accompanied by migration, and so too is divorce. Once-married women of older ages do not remarry as frequently as once-married men.

Dr. Taeuber concluded that we need more facts about marriage and divorce as they affect demography, and we need these facts more promptly. Miss Nora Powell of the United Nations Statistical Office summed up the situation when she remarked that the United States is "an underdeveloped nation in its marriage and divorce statistics."

Conference delegates conducted a state-by-state review of problems in qualifying for membership in the marriage and the divorce registration areas. To qualify, an area must maintain central files of records, must agree to a registration test conducted with NCHS coop-

eration, and must attain a satisfactory level of completeness in registration and in filling out certificate items. The delegates discussed techniques for improving registration along with ways of gaining support for the necessary legislative or administrative changes. Strong emphasis was placed on mobilizing the influence of the legal profession, including judges, and also of people interested in family relations and public health.

Improving the Statistics

In every State, there is much to be done to improve the quality of vital and health statistics.

Introduction of standard certificates and more complete marriage and divorce reporting would greatly improve the basic vital and health statistical data. The desire to improve such statistics motivated all the conference meetings. The workshop on registration methods in institutions paid special attention to means of obtaining better birth registration. The value of field visits to hospitals for identifying actual registration methods was emphasized, since the methods in use frequently differ from descriptions of these methods. The workshop recommended a hospital handbook on birth registration addressed particularly to administrators and clerical personnel. The purpose would be to suggest good registration methods and improve registration by showing the importance of registration to health and demography. It also was suggested that the next revision of the Physicians' Handbook include more material directed to the same end.

A study group on death registration may be included in the program for the next conference.

Increasing the Range of the Statistics

Vital statistics, along with census statistics, provide the basic materials for the study of population in all its aspects—biological, economic, and social.

The relationship between vital statistics, health statistics, and demography was strongly emphasized throughout the meetings. After briefly tracing the twin birth of demography and vital statistics in the 17th century and their

joint slow growth thereafter until about 30 years ago, Dr. Frank Lorimer, an internationally recognized population expert, dwelt on the complex demands that demography now makes on vital statistics: "We need more data, and we need more exact data. . . . We must understand family formation, and therefore we need cohort data—data organized not only by this year or that, but along the time axis, connecting what is happening this year with what was happening to the same individuals in past years."

In a panel discussion at a general session, Dr. Taeuber noted: "Fertility is the major and generally unpredictable variable in the United States. . . . The American young person is behaving, with respect to marriage and fertility, in a way that demography must come to understand." This calls for more facts and deeper analysis. In Dr. Taeuber's opinion, vital and health statisticians are making "a welcome though delayed response to current demographic needs."

In a luncheon address concluding the conference, John T. Marshall, Canada's now retired assistant Dominion statistician, cited many instances of the need in public health for such "top-notch bookkeeping facilities" as can be supplied only by "the disinterested watchdogs" of vital and health statistics. He pointed out that the present task of the statistician is even more difficult than it was in former years. "As the forces of health change direction or emphasis, and move forward to the attack on the diseases in the upper age brackets, we shall probably find our own job will become much tougher. From my own experience, I would say that meaningful statistics become very complicated in both the collection of the raw data and in the determination of the meaning and conclusions of the evidence collected."

In view of the magnitude of the population problem in many parts of the world, Marshall suggested that future population projections would need to be associated with "adequate projections or forecasts on the production of foodstuffs and the complementary goods and services that are needed to sustain them." This would require still more extensive statistical collaboration.

Other possibilities for extending the scope of

vital and health statistics were discussed in three workshops. The workshop on computer utilization considered alternative methods of record searching, with a view to linking various records and making their contents more available. The workshop recommended that a study group be established to examine the problems of record linkage and to consider the adoption of the universal birth number to be coordinated with the present social security system.

The workshop on population surveys and health research considered ways in which information collected by health departments has been or could be augmented by conducting surveys on samples of the population. Topics discussed were: methods of quality control, use and cost of surveys, kinds of help needed by health departments, need for better communication within the health department, and use of public health nurses as interviewers.

The workshop on vital records in health research studied a number of instances in which vital records provided a basis for unusual research efforts. Special consideration was given to quality of the data and to the administrative and other types of problems met when vital records are used in health research.

Personnel Needs in Public Health Statistics

One of the greatest problems of a large part of the world today is that vital statistics are either completely lacking or are fragmentary and untrustworthy. . . . The world looks to us, as it properly may, for assistance in dealing with the problem.

Our ability to provide international assistance in this field is severely limited by a short supply of people with the requisite skills. In fact the present supply is not even adequate for our domestic needs.

A workshop on recruitment and training of registrars and statisticians was held to consider, among other matters, the deliberations of a study group on student training and staff exchange. The study group had decided that the following areas of concern required immediate attention:

- A Federal-State-university interagency conference on biostatistics training and recruitment.

- Reappraisal of the potential in undergraduate training.

- Development of a program for "afteremployment" training of administratively or professionally responsible workers in the health field, as well as of statisticians and professionals in allied fields.

An agency was proposed "for the expansion and collation of efforts in delivering knowledge of statistics applied in the field of health, under the aegis of NCHS." It also was concluded that the work of this study group was not completed, but that further study should "take a change of direction."

Summary Observations

Dr. N. H. Dyer, West Virginia State director of health and liaison representative to the Conference of the Association of State and Territorial Health Officers, offered his informal observations and appraisals of the week's activities. His remarks emphasized continuity of purpose with changes to meet current interests and needs.

NOTE: Complete proceedings of the 10th national meeting of the Public Health Conference on Records and Statistics will be published later by the National Center for Health Statistics.

High-Speed Phototypesetter Installed

A 60-word-per-second computer-driven phototypesetter has been installed by the National Library of Medicine. Known as GRACE (graphic arts composing equipment), the new printer is part of MEDLARS (medical literature analysis and retrieval system). GRACE operates 25 times faster than previous phototypesetters, printing 300 characters per second or 3,600 five-letter words per minute. It is used by MEDLARS to print the *Index Medicus*, NLM's monthly listing of the world's medical literature and recurring bibliographies in special biomedical fields.

The August 1964 issue of *Index Medicus*, the first to be produced by GRACE, is a 609-page document, containing 13,733 citations and approximately 69,000 subject and author descriptive entries (1.8 million five-letter words). Processing time was approximately 16 hours, including set-up, running, and correction time.

GRACE has three components: a magnetic tape transport, an electric control unit, and an optical unit. The output is in the form of positive film prints in 9-inch widths, with type in three columns. After the film rolls are developed, they are printed through an offset process.